

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

Please replace the paragraph on page 5, starting at line 22, with the following paragraph:

In particular, the invention concerns the LmPDI protein of Leishmania major, with sequence ~~SEQ ID No: 3~~ SEQ ID No: 2, and any functional variant of LmPDI having at least 40% identity, preferably at least 80% identity with LmPDI.

Please replace the paragraph on page 7, starting at line 6, with the following paragraph:

A particular recombinant polypeptide of the invention is the LmPDI-(His)₆ protein with sequence ~~SEQ ID No: 4~~ SEQ ID No: 3, described in Example 2.

Please replace the paragraph on page 7, starting at line 14, with the following paragraph:

In a further aspect, the invention concerns a nucleic acid sequence coding for a protein or a polypeptide as described above. A preferred nucleic acid sequence comprises the sequence coding for LmPDI with sequence ~~SEQ ID No: 2~~ SEQ ID No: 1, or a fragment of said sequence with a size of 30 nucleotides or more, preferably more than 100 nucleotides, coding for a polypeptide comprising at least one characteristic epitope of LmPDI.

Please replace the paragraph on page 8, starting at line 17, with the following paragraph:

The invention also pertains to a nucleic acid probe₂ which specifically hybridizes under stringent conditions with the nucleic acid sequence of ~~SEQ ID No: 2~~ SEQ ID No: 1, allowing the presence or absence of the virulence gene coding for LmPDI to be determined in a biological sample.

Please replace the paragraph on page 9, starting at line 11, with the following paragraph:

As an example, a probe of the invention, which specifically hybridizes with sequence ~~SEQ ID No: 2~~ SEQ ID No: 1 under stringent conditions, is such that a Southern blot carried out using said labeled probe, when carried out on a DNA sample from cells infected with a strain of *L. major* expressing LmPDI, has at least one clearly distinct band of higher intensity than other bands (non specific), said band not appearing on a Southern blot carried out under the same conditions on a DNA sample from cells not infected by a strain of *L. major*.

Please replace the paragraph spanning pages 15 and 16 with the following paragraph:

Figure 2 shows the nucleotide sequence for the cDNA (SEQ ID No: 1) of LmPDI and the deduced sequence of amino acids (~~SEQ ID No: 3~~ SEQ ID No: 2). The nucleotides in lower case letters represent non-translated regions. The leader sequence (SL) of 18 nt is underlined and the potential sequence for the polyadenylation signal is boxed. The potential sequence for the peptide signal is shown in bold. The

potential active sites for LmPDI are double underlined and the probable sequence for retention in the endoplasmic reticulum is shown as a broken line.

Please replace the paragraph on page 21, starting at line 8, with the following paragraph:

The sequence corresponding to the open reading frame of cDNA of LmPDI (1371bp) deprived of the sequence coding for the peptide signal was cloned in the bacterial expression vector pET-22b (Novagen). ~~E.-coli~~ E. coli BL21 bacteria containing the recombinant plasmid (pET-22b-LmPDI) were cultivated in LB medium then synthesis of the recombinant protein was induced in the presence of 1 mM of isopropyl-1-thio-D-galactopyranoside (IPTG) for 4 hours. The recombinant protein LmPDI-(His)₆ (~~SEQ ID No: 4~~ SEQ ID No: 3) was purified by affinity chromatography on a nickel column (Ni²⁺) (Amersham-Pharmacia). The purity of the protein produced was verified by SDS-PAGE.